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ABSTRACT

Physical education programs at the nursery and elementary school levels should stress the development and refinement of fundamental movement patterns and a wide variety of sport skills instead of dealing with specialized skill development through refined performance experiences. The developmental model of physical education is based on the proposition that the development of children's movement abilities occurs in distinct but often overlapping phases (reflexes, rudimentary movement abilities, fundamental movement patterns, and sport-related abilities) in each of the categories of human movement (stability, locomotion, and manipulation). This development is achieved through participation in skill themes that are applied to the various physical education content areas of individualized movement, games and sports, and rhythmics. The movement concepts of effort, space, and relationships are also learned through participation in skill themes. Through performance in each of the skill themes, students develop through the appropriate level of motor skill learning (exploration, discovery, combination, selection, or refined performance). (JD)

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FUNDAMENTAL MOVEMENT EXPERIENCES FOR CHILDREN:
A Developmental Skill Theme Approach

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FUNDAMENTAL MOVEMENT EXPERIENCES FOR CHILDREN:

A Developmental Skill Theme Approach

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If the Phases of Motor development (Gallahue 1982) are to have any real meaning we should be able to construct a curricular model congruent with these phases. This curricular model should be able to serve as a "blueprint for action". In other words, it should make up the basic structure around which the daily lesson is planned and carried out by the teacher in the gymnasium or on the playing field. Theory and research is of little value if we can not bring order to it and make practical application to the lives of children. The value of theory and research that fails to foster models for implementation is limited at best. Similarly, curricular models not based on sound research and theory are little better. It is therefore, the intent of this paper to propose a developmentally based curricular model for implementing the physical education program during the preschool and elementary school years.

Curricular Models in Physical Education

Curricular rationales take many forms. Bain (1978) has identified six curricular rationales that are in use today by physical education teachers; (1) movement forms, (2) movement analysis, (3) human movement disciplines, (4) developmental stages, (5) motor learning risks analysis, and (6) student motives and purposes. The movement analysis and developmental stage models are most often found at the elementary school level and are the most common choices for curriculum development. These two approaches were debated by Tanner (1979) and Gallahue (1979) and summarized in an article by Ward and Werner (1981).

The developmental model is defined as that approach to physical education which aims to educate children in the use of their bodies so that

they can move more efficiently and effectively in a wide variety of fundamental movements and be able to apply these basic abilities to a wide variety of movement skills that may or may not be sport related. At the heart of the developmental model is the focus on developmentally appropriate movement experience that promote increased skill development at all levels. Games, sports, dances and the like serve as a vehicle for improving skill.

The movement analysis approach to physical education is defined as "that approach to physical education which teaches children to move skillfully with a knowledge of how they move and a meaningfulness in their movement" (Ward & Werner, 1981, P. 61). The movement analysis model is exemplified by movement education programs that place emphasis on understanding and application of the movement concepts originally proposed by Laban. These movement concepts are important but like the content areas of physical education should serve as a vehicle by which developmentally appropriate movement abilities are developed and refined. The developmental model for teaching physical education presented here attempts to recognize the validity of both the developmental stage and movement analysis curriculum rationales. It places the child at the center of the curricular process rather than content areas or movement concepts.

In order to facilitate presentation of the developmental model we will first review the three catagories into which movement may be classified and the appropriate movement skill themes that may be extracted from each catagory. Then we will discuss the three major content areas of physical education and the three movement concepts of movement education. We will then look at the stages in the process of motor learning and the implications for emphasizing indirect or direct methods of teaching. A developmental model will be presented for both the preschool and primary grades, and the upper elementary and middle school grades.

Catagories of Movement and Movement Skill Themes

The catagories of movement as they relate to motor development have been discussed extensively. Briefly, a catagory of movement is a classificatory scheme based on common underlying principles of movement. The terms locomotion, manipulation and stability are used here to represent these underlying principles. Although others have used the term "nonlocomotor" rather than "stability" as a given recognition as a movement catagory. Doing so is not arbitrary nor without support from others. Smith and Smith (1966), Gallahue, Werner, and Luedke (1975) and more recently Riggs (1980) have all chosen to classify movement behavior into the catagories of locomotion, manipulation, and stability. These three catagories serve as the organizing centers of the developmental physical education curriculum during the preschool and elementary school years and serve as the basis for the formation of movement skill themes.

A developmental skill theme is a particular fundamental movement or sport skill around which a specific lesson or series of lessons is organized. In the developmental curriculum a catagory of movement serves as the organizing center of each unit of the curriculum while skill themes serve as the organizing centers of the daily lesson plan. Each catagory of movement is briefly reviewed in the following paragraphs with a few examples of possible skill themes.

Stability

Stability refers to the ability to maintain one's balance in relationship to the force of gravity even though the nature of the application of the force may be altered or parts of the body may be placed in unusual positions. The classification of stability extends beyond the concept of balance and includes various axial movements and postures in which a premium is placed on controlling one's equilibrium. Stability is the most basic form of human movement. It is

basic to all efficient movement and permeates both the category of locomotion and manipulation. Bending, stretching, pivoting, dodging and walking on a balance beam are all examples of skill themes that may be incorporated into the daily lesson plan at the fundamental or sport skill phase of development.

Locomotion

Locomotion refers to changes in the location of the body relative to fixed points on the ground. To walk, run, hop, jump, slide, or leap is to be involved in locomotion. The movement classification of locomotion develops in conjunction with stability but not apart from it. Fundamental aspects of stability must be mastered before efficient forms of locomotion may take place. The vertical jump, rebounding, and high jumping are examples of skill themes that may be incorporated into the daily lesson plan at the fundamental or sport skill phase of development.

Manipulation

Manipulation is concerned with giving force to objects and absorbing force from objects by use of the hands or feet. The tasks of throwing, catching, kicking, trapping, and striking are included under the catagory of manipulation. Manipulation also refers to the fine motor controls required for tasks such as buttoning, cutting, printing, and writing. The scope of this book, however, is limited to the more gross motor aspects of manipulation. Large muscle manipulative abilities tend to develop somewhat later than stability and locomotor abilities. This is due, in part, to the fact that most manipulative movements incorporate elements of both stability and locomotion. Throwing a ball, passing a football, and pitching a baseball, are examples of skill themes within the manipulative catagory of movement.

Content Areas of Physical Education

Fundamental movements and sport skills within the catagories of movement outlined above may be developed and refined through the three major content areas of physical education: games and sports, rhythms, and self-testing

activities. The learning of particular games, rhythms, or self-testing activities is a means of developing stability, locomotor, and manipulative abilities appropriate to the developmental level of the child. Teachers must not lose sight of this goal. Every activity used in the program should be selected with a conscious awareness that it can contribute to developing and refining certain movement abilities. For children, their primary objective may be fun, but the serious teachers of movement have as their objectives learning to move and learning through movement. The possibility of fun as the motivation to learn is a by-product of any good educational program, and is an important objective. This point cannot be overemphasized, but when fun becomes the primary objective of the program for the teacher, then it ceases to be a physical education program and becomes a recreation period.

Games and Sports

Games and sports are used as a means of enhancing movement abilities appropriate to the child's developmental level. They are often classified into three subcatagories that proceed from the simple to the complex in the following manner:

1. Low organized games and relays
2. Lead-up games
3. Official sports

Rhythms

Rhythms are an important content area of the movement program. They are generally categorized into four subcontent areas moving from the simple to the complex within each:

1. Rhythmic fundamentals
2. Creative rhythms
3. Folk and square dance
4. Social dance

Self-testing

Self-testing (or individualized movement as it is often called) is the third major content area of the program. This area represents a wide variety of activities in which children work on their own and can improve their performance through their own individual efforts. Individualized activities may be classified in a variety of ways. The following is a common classification scheme for typical self-testing activities.

1. Fundamental movement activities
2. Sport skill activities
3. Physical fitness activities
4. Stunts
5. Tumbling
6. Small (hand) apparatus
7. Large apparatus

Achieving effectiveness and efficiency in each of the three catagories of movement at either the fundamental or the sport skill phase is the primary reason for incorporating games, rhythms, and self-testing activities in the program. The degree to which this is achieved is dependent on the particular developmental level of the children and the teacher's expertise in structuring developmentally appropriate movement experiences. Games, rhythms, and self-testing activities serve only as the vehicle by which these experiences are applied.

Movement Concepts of Movement Education

Fundamental movements and sport skills within the three catagories of movement may be elaborated upon and dealt with in terms of movement concepts. The development of particular movement concepts namely, effort, space, and relationships is the central focus of many movement education programs and is obmitted from most "traditional" physical education programs. In a developmental curriculum movement concepts are included but represent

a secondary emphasis to the program along with the three content areas discussed in the preceeding section. The primary focus of the developmental curriculum is on fundamental movement and sport skill development through implementation of skill themes. These skill themes are applied to the understanding and application of movement concepts and the content areas of physical education.

A brief explanation of the three movement concept areas in relationship to movement skill development follows.

Effort

The concept of effort deals with how the body moves. Children during the preschool and primary grade years need to learn about the concept of effort. Effort may be subdivided into three catagories with possibility for a wide variety of movement experiences combined with locomotor, manipulative and stability movements:

1. Force: Refers to the degree of muscular tension required to move the body or its parts from place to place or to maintain its equilibrium. Force may be heavy or light or fall somewhere in between these two extremes.
2. Time: Refers to the speed at which movement takes place. A movement may be fast or slow, gradual or sudden, erractic or sustained.
3. Flow: Refers to the continuity or coordination of movements. A movement may be smooth or jerky, free or bound.

Space

The concept of space deals with where the body moves. During their young years children need to understand where their body can move in space as well as how it can move. The following movement concepts of space can be directly related to all locomotor manipulative and stability movements.

1. Level: Refers to the height at which a movement is performed. A movement may be performed at a high, medium, or low level.

2. Direction: Refers to the path of movement. Movement may occur in a forward, backward, diagonal, up, down, left or right direction, or it may be in a straight/curvy, or zig zag pattern.
3. Range: Location, (self-space/general space) and extensions (wide/narrow, far/near, long/short, large/small) used in movement.

Relationships

The concept of relationships deals with both how and where the body moves in harmony with objects, and other people. The concept of relationships is important for children to understand and experience through the medium of movement.

1. Objects: Refers to stationing oneself in different positions to objects. Object relationships may be over/under, near/far, on/off, behind/in front, along side, front/back, underneath/on top, in/out, between/among, and others.
2. People: Refers moving in various forms with people. People relationships include solo, partner, group, and mass movement.

Levels of Motor Skill Learning

The content areas and the movement concepts discussed above may be implemented in a variety of ways. The teacher must, however, be aware that individuals tend to pass through typical learning levels as they develop and refine new movement skills. These levels are based on two developmental concepts. First, that the acquisition of movement abilities progresses from the simple to complex. Second, that children proceed gradually from general to specific in the development and refinement of their abilities. Based on these two concepts and fortified with the models by Gentile (1972), and Lawther (1977) it is possible to view learning a skill as a phenomenon that occurs in levels in the following manner.

1. Exploration
2. Discovery
3. Combination
4. Selection
5. Refined/performance

When involved in developing new stability, locomotor, or manipulative skills that are to be used in game, rhythm, or self-testing activities, we all generally go through the following sequence of learning experiences:

1. We explore the movements involved in the task in relative isolation to one another. The learner does not have control of movement but gets used to the task and forms a gross general framework of the pattern or skill.
2. We discover ways and means of executing each of these movements better through indirect means such as the observation of others performing, pictures, films, or books. During this aspect of achieving a gross general framework the learner begins to gain control coordinate the task it becomes relatively automatic.
3. We combine the isolated movements with others and experiment with them in various ways. This is a practice stage in which separate tasks are integrated, elaborated upon and begin to be u lized in various ways.
4. We select "best" ways of combining each of these movements through a variety of lead-up games, and informal means of competition, and presentation. This aspect of practice is more specific and detailed than the previous stage with more attention given to smoothing out the whole of several skill related tasks.
5. We refine the selected movements to a high degree and perform the particular activity through formal or informal means of competition, or through leisure-time pursuits. This is often called the automatic or skill diversification stage, and is rarely reached in elementary of middle school physical education classes.

This sequential progression of motor learning is similar for adolescents and adults as it is for children, although it may not be as readily apparent. This is because the adolescent and adult are generally at the sport skill phase and may spend less time with exploration, discovery, and the combination of new skills, and more time in the selection and performance aspects of the sequence. Preschool and primary grade children at the fundamental movement pattern phase of development spend a great deal of time exploring, discovering and combining new movements and less time with the selection of best ways of moving and the refined performance of activities.

Intermediate grade children typically on the general movement skill level spend the bulk of their time combining skills and less time with all others. Those at the specific movement skill level spend the greater portion of their time involved with more direct forms of combination and selecting best ways of executing skills. Those at the specialized level are involved primarily in refined performance activities, and continuing to select best ways of moving.

The teacher who is aware that the emphasis given to certain types of movement experiences is dependent upon the child's level of development will structure the environment and utilize teaching approaches that provide appropriate types of learning and illustrates how teachers may utilize various forms of indirect and direct teaching approaches that are best suited to the developmental level of their students in order to facilitate the development of fundamental and sport skill abilities.

SUMMARY

Unfortunately, programs stressing specialized skill development for young children abound. Specialized skill development places primary emphasis on refined performance and little emphasis on the other aspects of the learning sequence outlined here. There is nothing inherently wrong with skill specialization, but we must ask ourselves whether skill specialization in the preschool and elementary school is really in the best interests of most children. If it is considered to be in the children's best interest, it should only supplement the regular program in the form of after-school activities. Specialized skill development should never overshadow, replace, or serve as the primary purpose of the regular physical education program. The regular program in the nursery and elementary school should stress the development and refinement of fundamental movement patterns and a wide variety of sport skills instead of dealing with specialized skill development through refined performance experiences.

We must involve children in a series of coordinated movement experiences that go beyond the learning of isolated skills and the in-school playing of specific sports that they would probably learn on their own through some form of organized activity outside of the school, such as the YMCA, YWCA, Boys' or Girls' Clubs, or the Police Athletic League. As Broer (1973) stated, "If physical education is to make a real contribution to the total education of each student it must do more than give him a few isolated skills, most of which can be used only in specific recreational situations" (p. 8).

The developmental model of physical education is based on the proposition that the development of children's movement abilities occurs in distinct but often overlapping phases (reflexes, rudimentary movement abilities, fundamental movement patterns, and sport-related abilities) in each of the categories of human movement (stability, locomotion, and manipulation) and that this is achieved through participation in skill themes that are applied to the various

content areas of physical education (self-testing, games and sports, and rhythmics) and movement concepts of movement education (effort, space, and relationships) at the appropriate level of motor skill learning (exploration, discovery, combination, selection, or refined performance) that is recognized through the implementation of various indirect (movement exploration and guided discovery) and direct (command and task) teaching approaches.

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